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09/841,764 04/24/01 THYSSEN

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EXAMINER

NOLAN, D

ART UNIT

PAPER NUMBER

2641

DATE MAILED:

09/13/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/841,764

Applicant(s)

THYSSEN ET AL.

Examiner

Daniel A. Nolan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2001 and 07 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 21-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 5
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Response to Amendment***

1. The preliminary amendment filed 7 July 2001 was entered with the following effect:
  - o Claims 1-20 were cancelled.
  - o Claims 21-53 have been added and examined on their merits.

***Information Disclosure Statement***

2. The information disclosure statement filed April 24 2001 fails to comply with 37 CFR 1.97(d) because it lacks a statement as specified in 37 CFR 1.97(e). It has been placed in the application file, but the information referred to therein in question - - that does not appear on the 1449 for consideration -- has not been considered.
3. The information disclosure statement filed 24 April 2001 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

**Specification**

4. The abstract of the disclosure is objected to because the first sentence is not complete. Correction is required. See MPEP § 608.01(b).

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- The featured *computer network* of claims 26-28, 29, 32, 45 and etc. is not mentioned in the specification.
- The featured *internet-based network* of claims 27 & 28 is not mentioned in the specification.
- The feature of *cellular telephone networks* of the claims is not mentioned as well.
- The Examiner is proceeding with the understanding that because no particular advantage is specified in the use of particular devices, such devices as computers and the like are only necessary parts of comprising a network, serving much the same function as any other device installed to extend range, reduce attenuation, etc.
- The process of segmenting signals that is relied upon by claims 21, 34 and 38 is not described in any detail or even mentioned in the specification.
- The quantitative characteristic feature of claims 10, 19 and 39 whereby the generated speech signal is *imperceptible* from the original is not mentioned in the specification.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 39 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- The term "substantially imperceptible" in claims 10, 19 and 39 is a relative term which renders the claim indefinite. The term "substantially imperceptible" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.
- A person of ordinary skill in the art of speech signal processing has no indication as to the level of quality or other criteria that is expected to achieve the indicated result.

7. Claims 21-53 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are:

- The process of segmenting signals that is relied upon by claims 21, 34 and 38 and addressed in subsequent operations by dependent claims mentioned.
- While claims 34 and 38 provide for distinct processing of segments to be of sufficient importance to name them as a *first* and *second segments* in the claims, even the

least mention of determining, let alone differentiating between the segments is not mentioned in the specification. Such lack of detail would require undue experimentation on the part of a person of ordinary skill in the art of speech signal processing to arrive at the proper segmentation and processing order necessary to produce the described effect.

- o The Examiner is proceeding with the understanding that the number and order of the segments is of no consequence to the invention, but that determinations are made on the basis of other criteria that would be apparent to a person of ordinary skill.

### ***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

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1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claim 21 is rejected under the judicially created doctrine of double patenting over claim 1 of U. S. Patent No. 6,256,606 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

- o The only difference between the claims is in the preamble, which is moot because in this case the preamble bears no patentable weight.

- o Moreover, in the only difference in the claims, the *multi-rate speech codec* of the patent claim 1 is the same as the *communication device having a multi-rate speech decoder* of the application claim 21, both being considered an apparatus.
- o Finally, the features of the claims beyond those mentioned above are verbatim identical.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was



not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**lacavo et al**

14. Claims 21-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over lacavo et al (U.S. Patent 6,182,032 B1).

15. Regarding claim 21, the device of lacavo et al includes a *Voice Activity Detection circuit* (figure 2 item 29) coupled to a *processor* for the purpose of *selectively coding* (ibid. item 22). lacavo et al further describes the coding as being a *plurality of coding modes for speech* (column 4 line 39-48) *and one for silence* (as *silence & pauses* in column 7 line 27). By not specifying a dependency between processing speech and non-speech segments, lacavo et al makes it clear to a person of ordinary skill in the art of speech signal processing that *the selection of the silent mode would be made independent of any previous speech coding mode*.

16. Regarding claim 22, the claim is set forth with the same limits as claim 21. lacavo et al introduces his invention as being applicable to a *wireless communication* environment (in figure 1 and in column 1 line 14).

17. Regarding claim 23, the claim is set forth with the same limits as claim 22.

Iacavo et al defines his invention as being particular to *telephony* (ibid, line 13).

18. Regarding claim 24, the claim is set forth with the same limits as claim 23.

Iacavo et al defines his invention as being one of a *cellular telephone* (ibid, line 12).

19. Regarding claim 25, the claim is set forth with the same limits as claim 21. While Iacavo et al does not characterize the device as *hand-held*, the inclusion of a *laptop* portable computer (item 8 in figure 1) configured with *wireless communication* capability (ibid. item 7) or more so, the well known *wireless internet connections* commercially advertised as available at the time of the invention. This configuration would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention that the laptop was chosen over a desktop for its portability and that the natural progression from *desktop* to laptop would next incorporate *hand-held* to make the configuration even more portable.

20. Regarding claim 26 as understood by the Examiner, the claim is set forth with the same limits as claim 21. Iacavo et al makes it clear that his device will operate as part of a *computer network-based communications* (column 1 line 9).

21. Regarding claim 27 as understood by the Examiner, the claim is set forth with the same limits as claim 26. Iacovo et al makes it clear that his device operates with the *Internet* (column 1 line 14).

22. Regarding claim 28 as understood by the Examiner, the claim is set forth with the same limits as claim 27. Iacovo et al makes it clear that his *Internet* device includes the capability of *transmitting encoded speech* (shown in figures 1 & 2 and as is required to provide *speech capabilities* (column 1 line 16).

23. Regarding claim 29 as understood by the Examiner, the claim is set forth with the same limits as claim 21. The features of *computer network* and *telephony* were addressed in response to claims 23 through 26 and the claim is rejected for the same reason.

24. Regarding claim 30 as understood by the Examiner, the claim is set forth with the same limits as claim 29. The feature of the claim, being of a *telephone network* being *cellular*, is the same as those of a computer network and *telephony* as addressed in response to claims 23 and 24 and the claim is rejected for the same reason.

25. Regarding claim 31, the claim is set forth with the same limits as claim 21. Incorporation of a *data processor* is shown in figure 1 with the *laptop* (item 8) providing that functionality.

26. Regarding claim 32 as understood by the Examiner, the claim is set forth with the same limits as claim 21. As is the case for claims 29 & 30, the features of *computer* network and *telephony* were addressed in response to claims 23 through 26 and the claim is rejected for the same reason.

27. Regarding claim 33, the claim is set forth with the same limits as claim 21. lacavo et al discloses *discontinuous* processing as taking place after a *silence description coding* (column 7 lines 25-30) that would be without a bi-directional communication (ibid. line 54).

28. Regarding claim 34, lacavo et al discloses a *multi-rate transcoder* operating in three modes, two suitable for speech and a lower rate for silence. With such direction coupled with the inadvisability of combining different transmissions for the same signal simultaneously would have made it obvious to a person of ordinary skill in the art of speech signal processing to process each speech segment according to its merits so as to convey abrupt transitions faithfully.

The additional feature whereby the processes are independent between speech and silence is the same as that of claim 21 and the rejection is upheld for the same reasons.

29. Regarding claim 35, the claim is set forth with the same limits as claim 34.

lacavo et al discloses *transmitting a 1<sup>st</sup> and 2<sup>nd</sup> segment* (in figure 5), in this case, for radio.

**lacavo et al & Fujino et al**

30. Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over lacavo et al in view of Fujino et al (U.S. Patent 5,436,899).

31. Regarding claim 36, the claim is set forth with the same limits as claim 35. While lacavo et al discusses neither the process of *error checking* nor the use of *redundant data*, Fujino et al do, in providing for increased performance measures and disclosing the techniques required for voice coding and transmission (column 12 lines 25-43).

With the instruction that the step of *error checking* is included as a requisite, namely that *the first function necessary for adopting an embedded multiplexing method is a redundancy detecting function of voice transmission*, Fujino et al would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention that to incorporate the means for detecting and remedying errors is essential to competent speech signal transmission.

32. Regarding claim 37, the claim is set forth with the same limits as claim 36. Fujino et al incorporates the feature of *redundancy with error checking* as addressed in response to claim 36, and the claim is rejected for the same reasons provided above.

**lacavo et al**

33. Claims 38-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over lacavo et al.

34. Regarding claim 38 as understood by the Examiner, while the components of coder, decoder and connecting network are well-known in the prior art of record as disclosed by lacavo et al (in column 35-46), the arrangement of processing in order, a first segment and second segment followed by applying silence to the second segment would have been obvious to a person of ordinary skill in the art of speech signal processing to apply the requisite coding scheme to speech called for by speech, voice by voice and silence by silence in accord with the well known practices established to that date by the cited standards.

35. Regarding claim 39 as understood by the Examiner, the claim is set forth with the same limits as claim 38. lacavo et al discloses *generating reproduced speech signals* (column 4 line 38 explanation of figure 1 item 10) that would necessarily be expected to be reasonably consistent with the original signal.

36. Regarding claim 40, the claim is set forth with the same limits as claim 39. The features of the claim are the same as claim 33 and the claim is rejected for the same reasons.

37. Regarding claim 41, the claim is set forth with the same limits as claim 39. The features of the claim are the same as claim 22 and the claim is rejected for the same reasons.

38. Regarding claim 42, the claim is set forth with the same limits as claim 39. The features of the claim are the same as claim 26 and the claim is rejected for the same reasons.

39. Regarding claim 43, the claim is set forth with the same limits as claim 42. Iacavo et al discloses the applicability to Local Area Networks (column 1 line 35).

40. Regarding claim 44, the claim is set forth with the same limits as claim 42. Iacavo et al discloses the application of wired networks (column 1 line 13).

41. Regarding claim 45, the claim is set forth with the same limits as claim 44. Iacavo et al discloses the application of mixed wired/wireless networks (column 1 line 14) in any combination.

42. Regarding claim 46, Iacavo et al addresses all features, namely:

- o Those features of *multi-rate coder and decoder* are the same as claim 38 and the grounds of rejection applied there are maintained in this instance.

- o The additional feature of providing *comfort noise* is disclosed by lacavo et al (in column 1 line 64).

**lacavo et al & Fujino et al**

43. Claims 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over lacavo et al in view of Fujino et al.

44. Regarding claims 47 and 48, the claims are set forth with the same limits as claim 46 and 47, respectively. The features of the claim are the same as claim 36 and 37, and the claims are rejected for the same reasons.

**lacavo et al, Fujino et al & Chung et al**

45. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over lacavo et al in view of Fujino et al and further in view of Chung et al ("*Multilevel RS/Convolutional Concatenated Coded QAM for Hybrid IBOC-AM Broadcasting*", IEEE Transactions on Broadcasting, pages 49 – 59, March 2000).

46. Regarding claim 49, the claim is are set forth with the same limits as claim 48. Since the prior art of record and Chung et al share the interest with the immediate application of coding speech signals effectively, Chung et al's acknowledgement of the relationship between power and bandwidth limits on providing sufficient redundancy (introduced toward the end of the abstract) illustrate that the relationships are well



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known in fields involving transmitting and receiving. Consequently, it would have been obvious to a person of ordinary skill in the field of speech signal processing to adjust the redundant data so as to avoid congestion and bottlenecks when remaining bandwidth would be insufficient to maintain a signal with numerous correction data.

**lacavo et al, Fujino et al, Chung et al & Mano et al**

47. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over lacavo et al in view of Fujino et al and further in view of Chung et al and further in view of Mano et al ("*Design of a Pitch Synchronous Innovation CELP Coder for Mobile Communications*", IEEE Journal on Selected Areas in Communications, pages: 31 – 41, Jan. 1995).

48. Regarding claim 50, the claim is are set forth with the same limits as claim 49. As the prior art of record and Mano et al all have interest in coding and transmitting, the teachings of Mano et al with respect to the use of *perceptual weighting filters* (introduced in the Abstract) are germane to the problem of maintaining signal quality. As a result, it would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to employ such filtering to limit the extreme transients introduced by signal reconstruction to an acceptable audio level.

**lacavo et al & Caire et al**

49. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over lacavo et al in view of Caire et al ("*CDMA System Design through Asymptotic Analysis*", Global Telecommunications Conference, pages 2456 - 2460 vol.5, 5-9 Dec. 1999)

50. Regarding claim 51, the claim is set forth with the same limits as claim 46. Where lacavo et al selects the best coding that would provide satisfactory results consuming at the lower cost, he does not detail those factors that would cause a switch in coding schemes. While loss of power would seem to be one such obvious choice, lacavo et al does not specifically disclose this as a factor but instead determines the need for switching on the basis of perceived signal characteristics relating to speech. However, Claire et al examines other areas such as power considerations (last paragraph, right column page 2458) to anticipate fluctuations that would adversely affect signal quality. It would have been obvious to a person of ordinary skill in the field of speech signal processing to reduce the coding rate in an effort to conserve power when necessary and to anticipate problems rather than force a loss of transmission altogether.

**lacavo et al & Mano et al**

51. Claims 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over lacavo et al in view of Mano et al.

52. Regarding claim 52, the claim is set forth with the same limits as claim 46.

Where Iacavo et al selects the best coding that would provide satisfactory results consuming at the lower cost, he does not detail those factors that would cause a switch in coding schemes. Mano et al discloses that interference (as *non-periodic background noise*, 2<sup>nd</sup> paragraph, right column page 35) would be an indication that a change in coding is needed to avoid poor signal. It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention that interference that *electromagnetic interference* by itself would degrade the source signal enough to switch to a higher coding mode, and consequently that early detection and change would anticipate the event and reduce the data lost from a signal degraded enough to cause the transition.

53. Regarding claim 53, the claim is set forth with the same limits as claim 46. The feature of the claim is the same as claim 52, with the exception being that the *interference is associated with radio frequency level* fluctuations. The claim is therefore rejected for the same reasons, there being no apparent difference between the origin of the frequencies stated in the specification and their effect being well known to be identical.

**Conclusion**

55. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- o Iacovo et al ("*Vector Quantization and Perceptual Criteria in SVD Based CELP Coders*", 1990 International Conference on Acoustics, Speech, and Signal Processing, pages 33 - 36 vol.1, 3-6 April 1990) proposes that signal problems can be overcome by changing coding schemes in response to perceptual or changes in external factors as well as by modifying or correcting the signal.
- o Swaminathan et al (U.S. Patent 5,630,016) provides a necessary method of segmentation for coding, as well as detailing the conventional activities such as detection, adding comfort noise and the like.
- o Johansson (U.S. Patent 5,978,761) teaches that energy consumption can be a factor that would serve to initiate a change in transmission to conserve power (paragraph of line 41) in various telecommunication activities. Johnasson also discloses (in column 1 paragraph of line 37) that coded silence frames include information on background and spectrum characteristics.

56. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A. Nolan whose telephone number is (703) 305-1368. The examiner can normally be reached on Monday, Tuesday, Thursday & Friday, between the hours of 6:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached at (703) 305-6137.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314. Label informal and draft communications as "DRAFT" or "PROPOSED", & designate formal communications as "EXPEDITED PROCEDURE".

Any response to this action may be faxed according to the above instructions,

or mailed to:                      Box AF  
   Commissioner of Patents and Trademarks  
   Washington, D.C. 20231

or hand-delivered to:          Crystal Park 2,  
   2121 Crystal Drive, Arlington, VA,  
   Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist at phone (703) 305-4700.

Daniel A. Nolan  
Examiner  
Art Unit 2641

dan

August 24, 2001

  
Richmond Dorvil  
Primary Examiner